Paper ID: 80495 oral

IAF SPACE SYSTEMS SYMPOSIUM (D1) Interactive Presentations - IAF SPACE SYSTEMS SYMPOSIUM (IPB)

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FCS-1, HOW A TINY CUBESAT CHANGED THE MINDSET

Abstract

This paper is about a project started for Technology Demonstration and ended in a Cubesat Roadmap. FCS-1 is the very first Cubesat designed and developed all in FazaDotIr team. The mission was to show the first operation of an IoT payload and test the Magnetic Attitude Control performance in orbit. The development process of FCS-1 lasted for about 4 months, but it changed the 4-year plan and the team Mindset. Design and Implementation of Satellite Subsystems and the Integration phase have different Lessons Learned that will be Shared in this paper, but the main part of the paper is about the real results of FCS-1 experience, where the idea of Satolutions started. Satolutions, a startup on Cubesats for Goods, is going to develop Low Cost Cubesat Platforms as a service for Payloads which can provide Solutions to High Demand Needs and Problems. This part of paper presents the changes in mid-term plan and its consequences. The insights made in this evolution may help many startups in Space Emerging Countries which are in their early stages and were unsuccessful on catching Investors' Eyes or Public Demand.